

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An electronic device comprising:
a substrate; and
a film disposed on the substrate, the film containing atomic layer deposited LaAlO₃
having a predetermined amount of lanthanum and aluminum on a surface on which the film
contacts.
2. (Original) The electronic device of claim 1, wherein the film includes Al₂O₃ and La₂O₃.
3. (Original) The electronic device of claim 1, wherein the film is substantially amorphous.
4. (Original) The electronic device of claim 1, wherein the film exhibits a dielectric
constant in the range from about 21 to about 25.
5. (Original) The electronic device of claim 1, wherein the film exhibits an equivalent
oxide thickness (t_{eq}) in the range from about 1.5 Angstroms to about 5 Angstroms.
6. (Original) The electronic device of claim 1, wherein the film exhibits an equivalent
oxide thickness (t_{eq}) of less than 3 Angstroms.
7. (Currently Amended) A transistor comprising:
a body region between first and second source/drain regions in a substrate;
a film on the body region between the first and second source/drain regions, the film
containing atomic layer deposited LaAlO₃ having a predetermined amount of lanthanum and
aluminum in contact with the body region; and
a gate coupled to the film;
the film being formed by atomic layer deposition including:
pulsing a lanthanum containing precursor into a reaction chamber containing a

substrate;

pulsing a first oxygen containing precursor into the reaction chamber;
pulsing an aluminum containing precursor into a reaction chamber; and
pulsing a second oxygen containing precursor into the reaction chamber.

8. (Original) The transistor of claim 7, wherein pulsing a lanthanum containing precursor into a reaction chamber includes pulsing a La(thd)₃ (thd = 2,2,6,6- tetramethyl-3,5-heptanedione) source gas into the reaction chamber.
9. (Original) The transistor of claim 7, wherein pulsing an aluminum containing precursor into the reaction chamber includes pulsing a DMEAA source gas into the reaction chamber.
10. (Previously Presented) The transistor of claim 7, wherein pulsing an aluminum containing precursor into the reaction chamber includes pulsing a trimethylaluminum source gas into the reaction chamber.
11. (Original) The transistor of claim 7, wherein the transistor further includes:
 - a floating gate situated between the body region and the gate; and
 - a floating gate dielectric disposed on the floating gate, separating the floating gate and the gate, the floating gate dielectric containing atomic layer deposited LaAlO₃.
12. (Currently Amended) A transistor comprising:
 - a body region between first and second source/drain regions in a substrate;
 - a film on the body region between the first and second source/drain regions, the film containing atomic layer deposited LaAlO₃ having a predetermined amount of lanthanum and aluminum in contact with the body region; and
 - a gate coupled to the film.
13. (Currently Amended) The transistor of claim 12, wherein the ~~dielectric layer~~ film includes Al₂O₃ and La₂O₃.

14. (Currently Amended) The transistor of claim 12, wherein the ~~dielectric layer~~ film is substantially amorphous.
15. (Currently Amended) The transistor of claim 12, wherein the ~~dielectric layer~~ film exhibits a dielectric constant in the range from about 21 to about 25.
16. (Currently Amended) The transistor of claim 12, wherein the ~~dielectric layer~~ film exhibits an equivalent oxide thickness (t_{eq}) in the range from about 1.5 Angstroms to about 5 Angstroms.
17. (Currently Amended) The transistor of claim 12, wherein the ~~dielectric layer~~ film exhibits an equivalent oxide thickness (t_{eq}) of less than 3 Angstroms.
18. (Original) The transistor of claim 12, wherein the transistor further includes:
 - a floating gate situated between the body region and the gate; and
 - a floating gate dielectric disposed between the floating gate and the gate.
19. (Original) The transistor of claim 12, wherein the transistor further includes:
 - a floating gate situated between the body region and the gate; and
 - a floating gate dielectric disposed between the floating gate and the gate, the floating gate dielectric containing atomic layer deposited LaAlO₃.
20. (Withdrawn – Currently Amended) A memory comprising:
 - a number of access transistors, each access transistor including:
 - a body region between first and second source/drain regions in a substrate;
 - a film on the body region between the first and second source/drain regions, the film containing atomic layer deposited LaAlO₃ having a predetermined amount of lanthanum and aluminum in contact with the body region; and
 - a gate coupled to the film;
 - a number of word lines coupled to a number of the gates of the number of access

transistors;

a number of source lines coupled to a number of the first source/drain regions of the number of access transistors; and

a number of bit lines coupled to a number of the second source/drain regions of the number of access transistors;

the film being formed by atomic layer deposition including:

pulsing a lanthanum containing source gas into a reaction chamber containing a substrate;

pulsing an aluminum containing source gas into a reaction chamber.

21. (Withdrawn) The memory of claim 20, wherein pulsing a lanthanum containing source gas into a reaction chamber includes pulsing a La(thd)₃ (thd = 2,2,6,6- tetramethyl-3,5-heptanedione) source gas into the reaction chamber.

22. (Withdrawn) The memory of claim 20, wherein pulsing an aluminum containing source gas into the reaction chamber includes pulsing a DMEAA source gas into the reaction chamber.

23. (Withdrawn -Previously Presented) The memory of claim 20, wherein pulsing an aluminum containing source gas into the reaction chamber includes pulsing a trimethylaluminum source gas into the reaction chamber.

24. (Withdrawn -Previously Presented) The memory of claim 20, wherein the memory is a flash memory.

25. (Withdrawn) The memory of claim 20, wherein the memory is a dynamic read access memory.

26. (Withdrawn – Currently Amended) A memory comprising:

a number of access transistors, each access transistor including:

a body region between first and second source/drain regions in a substrate;

a film on the body region between the first and second source/drain regions, the film containing atomic layer deposited LaAlO₃ having a predetermined amount of lanthanum and aluminum in contact with the body region; and

a gate coupled to the film;

a number of word lines coupled to a number of the gates of the number of access transistors;

a number of source lines coupled to a number of the first source/drain regions of the number of access transistors; and

a number of bit lines coupled to a number of the second source/drain regions of the number of access transistors.

27. (Withdrawn-Currently Amended) The memory of claim 26, wherein the ~~dielectric layer~~ film exhibits a dielectric constant in the range from about 21 to about 25.

28. (Withdrawn-Currently Amended) The memory of claim 26, wherein the ~~dielectric layer~~ film exhibits an equivalent oxide thickness (t_{eq}) in the range from about 1.5 Angstroms to about 5 Angstroms.

29. (Withdrawn) The memory of claim 26, wherein each access transistor further includes:
a floating gate situated between the body region and the gate; and
a floating gate dielectric disposed between the floating gate and the gate, the floating gate dielectric containing atomic layer deposited LaAlO₃.

30. (Withdrawn) The memory of claim 26, wherein the memory is a dynamic read access memory.

31. (Withdrawn -Previously Presented) The memory of claim 26, wherein the memory is a flash memory.

32. (Withdrawn – Currently Amended) An information handling device comprising:
- a processor;
 - a memory, the memory including:
 - a number of access transistors, each access transistor having:
 - first and second source/drain regions in a substrate;
 - a body region between the first and second source/drain regions;
 - a film on the body region between the first and second source/drain regions, the film containing atomic layer deposited LaAlO₃ having a predetermined amount of lanthanum and aluminum in contact with the body region; and
 - a gate coupled to the film;
 - a number of word lines coupled to a number of the gates of the number of access transistors;
 - a number of source lines coupled to a number of the first source/drain regions of the number of access transistors;
 - a number of bit lines coupled to a number of the second source/drain regions of the number of access transistors; and
 - a system bus that couples the processor to the memory array;
- the film being formed by atomic layer deposition including:
- pulsing a lanthanum containing source gas into a reaction chamber containing the substrate; and
 - pulsing an aluminum containing source gas into the reaction chamber.
33. (Withdrawn) The information handling device of claim 32, wherein pulsing a lanthanum containing source gas into a reaction chamber includes pulsing a La(thd)₃ (thd = 2,2,6,6-tetramethyl-3,5- heptanedione) source gas into the reaction chamber.
34. (Withdrawn) The information handling device of claim 32, wherein pulsing an aluminum containing source gas into the reaction chamber includes pulsing a DMEAA source gas into the reaction chamber.

35. (Withdrawn -Previously Presented) The information handling device of claim 32, wherein pulsing an aluminum containing source gas into the reaction chamber includes pulsing a trimethylaluminum source gas into the reaction chamber.
36. (Withdrawn) The information handling device of claim of claim 32, wherein each access transistor further includes:
- a floating gate situated between the body region and the gate; and
 - a floating gate dielectric disposed between the floating gate and the gate.
37. (Withdrawn) The information handling device of claim 32, wherein the information handling device is a computer.
38. (Withdrawn – Currently Amended) An information handling device comprising:
- a processor;
 - a memory, the memory including:
 - a number of access transistors, each access transistor having:
 - first and second source/drain regions in a substrate;
 - a body region between the first and second source/drain regions;
 - a film on the body region between the first and second source/drain regions, the film containing atomic layer deposited LaAlO₃ having a predetermined amount of lanthanum and aluminum in contact with the body region; and
 - a gate coupled to the film;
 - a number of word lines coupled to a number of the gates of the number of access transistors;
 - a number of source lines coupled to a number of the first source/drain regions of the number of access transistors; and
 - a number of bit lines coupled to a number of the second source/drain regions of the number of access transistors; and
 - a system bus that couples the processor to the memory array.

39. (Withdrawn-Currently Amended) The information handling device of claim 38, wherein the ~~dielectric layer~~ film exhibits a dielectric constant in the range from about 9 to about 30.

40. (Withdrawn-Currently Amended) The information handling device of claim 38, wherein the ~~dielectric layer~~ film exhibits an equivalent oxide thickness (t_{eq}) in the range from about 1.5 Angstroms to about 5 Angstroms.

41. (Withdrawn -Previously Presented) The information handling device of claim 38, wherein the memory is a flash memory.

42. (Withdrawn -Previously Presented) The information handling device of claim 38, wherein the memory is a dynamic read access memory.

43. (Withdrawn -Previously Presented) The information handling device of claim 38, wherein each access transistor further includes:
a floating gate situated between the body region and the gate; and
a floating gate dielectric disposed between the floating gate and the gate, the floating gate dielectric containing atomic layer deposited LaAlO₃.

44. (Withdrawn) The information handling device of claim 38, wherein the processor is a microprocessor.

45. (Withdrawn) The information handling device of claim 38, wherein the information handling device is a computer.